

wherein said receiver selects the one of the plurality of satellite communication channels on which data is to be transmitted from said transmitter to said receiver in accordance with load levels respectively associated with the plurality of satellite communication channels.

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cancel

76. A system according to claim 75, wherein said receiver selects the one of the plurality of satellite communication channels on which data is to be transmitted from said transmitter to said receiver by selecting the satellite communication channel having the lowest load level.

77. A system according to claim 75, wherein said receiver selects a lower speed and/or higher power satellite communication channel only after using up all other higher speed and/or lower power satellite communication channels.--.

REMARKS

Reconsideration and allowance of the subject application are respectfully solicited.

Claims 2 through 11, 16 through 25, 28, 29, 33 through 43, 46 through 67, and 69 through 77 are pending, with Claims 2, 16, 19, 22, 24, 28, 33, 39, 42, 51, 57, 69 and 75 being independent. Claims 42 through 67 were allowed. Claims 1, 12 through 15, 26, 27, 30 through 32, 44, 45, and 68 have been cancelled. Claims 2, 16, 19, 22, 24, 28, 33, 39, 41, 42, 46, 47, 48, 57 through 61, 66, and 67 have been amended. Claims 69 through 77 have been added. In this regard, it will be appreciated that Claim 42 previously recited options (a) or (b), and has now been amended to recite option (a), with option (b) having been transferred to Claims 69 through 74 which were formulated upon the basis of Claims 42, 43, 46, 47, 49, and 50, respectively. It will further be appreciated that Claim 57 previously recited "transmitter or... receiver", and has now

been amended to recite "transmitter", with "receiver" having been transferred to Claims 75 through 77 which were formulated upon the basis of Claims 57 through 59, respectively. Accordingly, allowance of the newly-added claims is respectfully requested.

Claims 1, 12 through 15, 26, 27, 30 through 32, 41, and 68 were rejected under 35 U.S.C. § 103 over U.S. Patent No. 5,678,175 (Stuart, et al.). Claims 2 through 11, 16, through 25, 28, 29, and 33 through 40 were objected to and indicated as being allowable if rewritten in independent form. All rejections and objections are respectfully traversed.

Objected-to Claims 2, 16, 19, 22, 24, 28, 33, and 39 have been rewritten in independent form; accordingly, allowance thereof is earnestly solicited.

The dependent claims are also submitted to be patentable because they set forth additional aspects of the present invention and are dependent from independent claims discussed above. Therefore, separate and individual consideration of each dependent claim is respectfully requested.

Applicant submits that this application is in condition for allowance, and a Notice of Allowance is respectfully requested.

REQUEST FOR INTERVIEW


If any questions remain, Applicant respectfully requests that the Examiner contact Applicant's undersigned representative, John T. Whelan, at (301) 428-7172.

CONCLUSION

Applicant submits that this application is in condition for allowance, and a Notice of Allowance is respectfully requested.

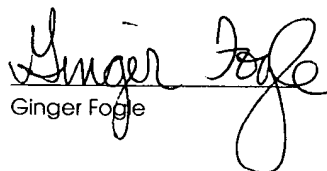
Applicant's undersigned attorney may be reached at (301) 428-7172. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

 01-0202
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MARKED-UP CLAIM SHEET

2. (Amended) [The] A satellite broadcasting system [of claim 1,]
comprising:
- a transmitter including transmitting means for transmitting data signals on
first and second communication channels via satellite; and
- a receiver including (a) receiving means for receiving the data signals on
the first and second communication channels and (b) tuning means responsive to a
selected communication channel indication for tuning in a particular one of the first and
second communication channels identified by the selected communication channel
indication, [;]
- wherein the transmitter transmits to the receiver on the particular
communication channel based on the selected communication channel indication; and
- wherein the receiver further includes[:] selecting means coupled with the
receiving means for selecting one of the first and second communication channels and
selecting a selected communication channel indication₁ [;] and communicating means
for communicating the selected communication channel indication to the transmitter.
16. (Amended) A [The] satellite broadcasting system [of claim 12],
comprising:
- a transmitter including transmitting means for transmitting data signals on
first and second communication channels via satellite; and
- a receiver including (a) receiving means for receiving the data signals on
the first and second communication channels and (b) tuning means responsive to a
selected communication channel indication for tuning in a particular one of the first and
second communication channels identified by the selected communication channel
indication,

wherein the transmitter transmits to the receiver on the particular communication channel based on the selected communication channel indication; and

wherein the transmitter further includes selecting means coupled with the transmitting means for selecting one of the first and second communication channels for communication with the receiver and selecting a selected communication channel indication, and notifying means responsive to the selecting means for providing the receiver with the selected communication channel indication,

wherein the first communication channel has a first bit rate and the second communication channel has a second bit rate greater than the first bit rate, and wherein signals received by the receiver are characterized at any given time by an energy-per-bit to noise ration, and wherein the receiver further includes means for monitoring the energy-per-bit to noise ratio, and wherein the receiver periodically communicates the energy-per-bit to noise ratio to the transmitter.

19. (Amended) A [The] satellite broadcasting system [of claim 12], comprising:

a transmitter including transmitting means for transmitting data signals on first and second communication channels via satellite; and

a receiver including (a) receiving means for receiving the data signals on the first and second communication channels and (b) tuning means responsive to a selected communication channel indication for tuning in a particular one of the first and second communication channels identified by the selected communication channel indication,

wherein the transmitter transmits to the receiver on the particular communication channel based on the selected communication channel indication; and

wherein the transmitter further includes selecting means coupled with the transmitting means for selecting one of the first and second communication channels for communication with the receiver and selecting a selected communication channel

indication, and notifying means responsive to the selecting means for providing the receiver with the selected communication channel indication,

wherein the first communication channel has a first power level and the second communication channel has a second power level lower than the first power level, and wherein signals received by the receiver are characterized at any given time by an energy-per-bit to noise ratio, and wherein the receiver further includes means for monitoring the energy-per-bit to noise ratio, and wherein the receiver periodically communicates the energy-per-bit to noise ratio to the transmitter.

22. (Amended) A [The] satellite broadcasting system [of claim 1],
a transmitter including transmitting means for transmitting data signals on
first and second communication channels via satellite; and

a receiver including (a) receiving means for receiving the data signals on
the first and second communication channels and (b) tuning means responsive to a
selected communication channel indication for tuning in a particular one of the first and
second communication channels identified by the selected communication channel
indication,

wherein the transmitter transmits to the receiver on the particular
communication channel based on the selected communication channel indication, and

wherein the transmitter transmits digital data signals at a first bit rate on the first communication channel and transmits digital data signals at a second bit rate different from the first bit rate on the second communication channel.

24. (Amended) A [The] satellite broadcasting system [of claim 1],
a transmitter including transmitting means for transmitting data signals on
first and second communication channels via satellite; and

a receiver including (a) receiving means for receiving the data signals on
the first and second communication channels and (b) tuning means responsive to a

selected communication channel indication for tuning in a particular one of the first and second communication channels identified by the selected communication channel indication,

wherein the transmitter transmits to the receiver on the particular communication channel based on the selected communication channel indication, and

wherein the transmitter transmits digital data signals at a first power level on the first communication channel and transmits digital data signals at a second power level different from the first power level on the second communication channel.

28. (Amended) A [The] satellite broadcasting system [of claim 1],
a transmitter including transmitting means for transmitting data signals on
first and second communication channels via satellite; and

a receiver including (a) receiving means for receiving the data signals on
the first and second communication channels and (b) tuning means responsive to a
selected communication channel indication for tuning in a particular one of the first and
second communication channels identified by the selected communication channel
indication,

wherein the transmitter transmits to the receiver on the particular
communication channel based on the selected communication channel indication, and

wherein the first and second communication channels comprise respective first and second signals broadcast by at least one satellite at a single frequency, and wherein one of the first and second signals has a different polarization than the other.

33. (Amended) A [The] satellite broadcasting system [of claim 32],
comprising:

a transmitter including transmitting means for transmitting data signals on
first and second communication channels via satellite; and

a receiver including (a) receiving means for receiving the data signals on the first and second communication channels and (b) tuning means responsive to a selected communication channel indication for tuning in a particular one of the first and second communication channels identified by the selected communication channel indication,

wherein the transmitter transmits to the receiver on the particular communication channel based on the selected communication channel indication, and

wherein the transmitter transmits to the receiver on one of a plurality of communication channels, said plurality including the first and second communication channels, and

wherein the transmitter includes means for determining a communication channel load factor for each of the plurality of communication channels.

39. (Amended) A satellite broadcasting system [of claim 1,]
comprising:

a transmitter including transmitting means for transmitting data signals on first and second communication channels via satellite; and

a receiver including (a) receiving means for receiving the data signals on the first and second communication channels and (b) tuning means responsive to a selected communication channel indication for tuning in a particular one of the first and second communication channels identified by the selected communication channel indication,

wherein the transmitter transmits to the receiver on the particular communication channel based on the selected communication channel indication, and

wherein the transmitter broadcasts information pertaining to each communication channel.

41. (Amended) A satellite broadcasting system according to Claim 2,
wherein said receiver is a computer terminal. [, comprising:

a transmitter including transmitting means for transmitting data signals on
first and second communication channels via satellite; and

a computer terminal including

receiving means for receiving the data signals on the first and
second communication channels, and

tuning means responsive to a selected communication channel
indication for tuning in a particular one of the first and second
communication channels identified by the selected communication
channel indication;

wherein the transmitter transmits to the computer terminal on the
particular communication channel based on the selected communication channel
indication.]

42. (Amended) A system comprising:

a transmitting apparatus for transmitting data by a selected one of a
plurality of satellite communication channels, the plurality of satellite communication
channels comprising [(a)] a first satellite communication channel having a lower bit rate
and a second satellite communication channel having a higher bit rate [or (b) a first
satellite communication channel having a higher signal power level and a second
satellite communication channel having a lower signal power level]; and

a receiver for receiving data using a selected one of the plurality of
satellite communication channels,

wherein said receiver comprises a signal strength detector for detecting
signal strength of the selected one of the plurality of satellite communication channels,
and

wherein at least one of the following two conditions is satisfied (i) said transmitting apparatus changes selection of the satellite communication channel [(i)] from the second satellite communication channel to the first satellite communication channel in response to detection, by said signal strength detector of said receiver, of the signal strength of the second satellite communication channel being less than a predetermined value or (ii) said transmitting apparatus changes selection of the satellite communication channel from the first satellite communication channel to the second satellite communication channel in response to detection, by said signal strength detector of said receiver, of the signal strength of the first satellite communication channel being greater than a predetermined value.

46. (Amended) A system according to any of claims 42 [through 45] and 43, wherein said transmitting apparatus changes selection of the satellite communication channel from the second satellite communication channel to the first satellite communication channel in response to detection, by said signal quality detector of said receiver, of the signal strength of the second satellite communication channel being less than a predetermined value.

47. (Amended) A system according to any of claims 42 [through 45] and 43, wherein said transmitting apparatus changes selection of the satellite communication channel from the first satellite communication channel to the second satellite communication channel in response to detection, by said signal quality detector of said receiver, of the signal strength of the first satellite communication channel being greater than a predetermined value.

48. (Amended) A system according to claim 42, wherein [the plurality of satellite communication channels comprise] the first satellite communication channel

[having] has a lower bit rate effected by BPSK modulation and the second satellite communication channel [having] has a higher bit rate effected by QPSK modulation.

57. (Amended) A system comprising:

a transmitter for transmitting data via satellite, said transmitter transmitting data on a selected one of a plurality of satellite communication channels; and

a receiver for receiving data using a selected one of the plurality of satellite communication channels,

wherein [either] said transmitter [or said receiver] selects the one of the plurality of satellite communication channels on which data is to be transmitted from said transmitter to said receiver in accordance with load levels respectively associated with the plurality of satellite communication channels.

58. (Amended) A system according to claim 57, wherein [either] said transmitter [or said receiver] selects the one of the plurality of satellite communication channels on which data is to be transmitted from said transmitter to said receiver by selecting the satellite communication channel having the lowest load level.

59. (Amended) A system according to claim 57, wherein [either] said transmitter [or said receiver] selects a lower speed and/or higher power satellite communication channel only after using up all other higher speed and/or lower power satellite communication channels.

60. (Amended) A system according to claim [57] 75, wherein said receiver selects the one of the plurality of satellite communication channels on which data is to be transmitted from said transmitter to said receiver in accordance with information sent by said transmitter to said receiver representative of load level, bit rate, and/or power level of a satellite communication channel.

61. (Amended) A system according to claim [57] 75, wherein said receiver selects the one of the plurality of satellite communication channels on which data is to be transmitted from said transmitter to said receiver and transmits information identifying the selected satellite communication channel to said transmitter to cause said transmitter to transmit to said receiver on the selected satellite communication channel.

66. (Amended) A system according to claim [65] 75, wherein said [channel notifying means notifies said] receiver communicates the selection of the satellite communication channel to said transmitter via a telephone line, a packet network, or the internet.

67. (Amended) A system according to claim [65] 75, wherein said [channel notifying means notifies said] receiver communicates the selection of the satellite communication channel to said transmitter via a satellite return channel.